



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

# Social Science Community Newsletter

Volume 9, August 2016 ~ Sharing knowledge for better practices

## OAR Awards Supplemental Funding to NSF Grant Recipients to Increase Weather Social Science

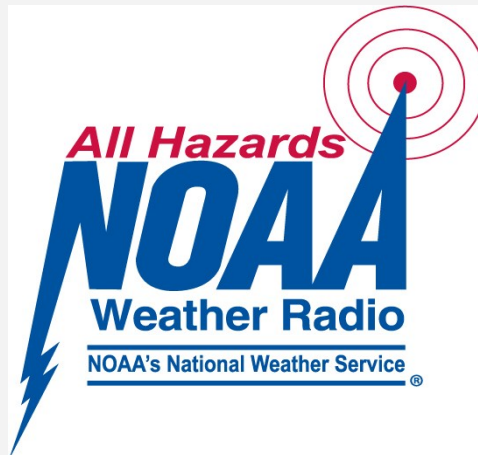
The Office of Weather and Air Quality in NOAA's Office of Oceanic and Atmospheric Research (OAR) just launched a new funding initiative with the National Science Foundation (NSF) to bring NSF investments in weather social science into the NOAA. The initiative adds supplemental funds to ongoing NSF awards and offers the researchers the chance to do additional work with NOAA and the agency's core partners. This supplemental funding is marked specifically for applying the research that the NSF awards fund and leverages \$4 million in NSF research investments.

Three projects are the first to pilot this initiative. The first project, co-led by Jeannette Sutton (University of Colorado at Colorado Springs) and Carter Butts (University of California, Irvine) examines billions of tweets to better understand the attributes and/or sources of risk messages (for many hazards, including weather hazards) that earn them social influence. The supplemental funding expands this project to focus on the tweets from Weather Service Forecast Offices. This is critical work because forecast offices use Twitter every day to communicate safety information to the American public.



Credit: Twitter

The second project, led by Susan Joslyn (University of Washington), explores the ways forecast uncertainty is communicated as events unfold and how the various options for conveying risk in time affect judgments about risk. The NOAA-specific portion of the work is a project with the nearby Seattle NWS forecast office and involves local emergency management to improve the communication of forecast uncertainty to the local emergency managers who are a key NWS stakeholder.



***OAR Supplemental Funding, continues on page 3***

## Call for Participation in a Data Visualization Community of Practice

Data visualization allows us to identify patterns, trends, and correlations that might otherwise go unnoticed.

We're looking for people to form a Data Visualization Community of Practice to advance the art and science of displaying data.

Interested in participating? Send a message to: [prss.socsci@noaa.gov](mailto:prss.socsci@noaa.gov)

## Upcoming Events



**Sept. 13, 2016:** "Community-based Social Marketing: Fostering Sustainable Behavior" Seminar  
[www.nodc.noaa.gov/seminars/](http://www.nodc.noaa.gov/seminars/)

**Sept. 28, 2016:** "Pilot Societal Outcome Indicators for the NWS Weather Ready Nation (WRN) Program" Seminar  
[www.nodc.noaa.gov/seminars/](http://www.nodc.noaa.gov/seminars/)

**Oct. 4, 2016:** "Ocean Highlights from the IUCN World Conservation Congress" Seminar  
[www.nodc.noaa.gov/seminars/](http://www.nodc.noaa.gov/seminars/)

**Dec. 5-9, 2016:** A Community of Ecosystem Services (ACES) Conference, Jacksonville, FL  
[www.conference.ifas.ufl.edu/aces/](http://www.conference.ifas.ufl.edu/aces/)

## National Water Center Summer Institute Research Project Seeks to Improve Communication with First Responders

Jacksonville State University's Whitney Henson led a team participating in the 2016 National Water Center (NWC) Summer Institute that researched how to use technology to improve emergency response during meteorological hazards.

The study focused on what emergency management agencies at all hierarchical levels consider to be the "gap" between the critical needs of first responders and the deliverables offered by advancing sciences. The objective was to develop a conceptual model to translate and interconnect the "science domain" (i.e., weather information sources) with the "social domain" (i.e. emergency managers, first responders, and those affected by an event). This "translation" concept called "Translator-TTX".

Major findings suggest further research opportunities exist in implementing ESRI Story Maps for pre-planning tabletop exercises (TTX), reverse look-up inundation mapping updates through first responder windshield survey methods, and spatial-temporal locational 3-D object analytics to provide emergency personnel with enhanced visual perceptions and situational awareness.

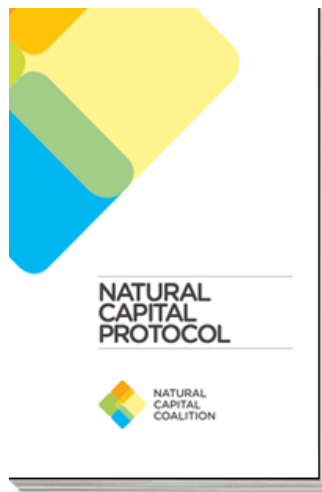
For more information on this project, contact Whitney Henson at [whenson@stu.jsu.edu](mailto:whenson@stu.jsu.edu)



Whitney Henson (center) meets Dr. Kathryn Sullivan, NOAA Administrator (right) and Dr. Monica Grasso, NOAA Chief Economist (left) at the NWC in Tuscaloosa, Alabama in August 2016  
Photo courtesy of Whitney Henson

### ***Did You Know?***

**At the UN 'Rio+20' Earth Summit in 2012, CEO's from more than 40 financial institutions committed to integrating natural capital by 2020.<sup>1</sup>**



Credit: Natural Capital Coalition

## DOC Joins the Natural Capital Coalition

The Department of Commerce (DOC) is the first government agency in the U.S. to become a member of the Natural Capital Coalition (NCC). The NCC ([naturalcapitalcoalition.org](http://naturalcapitalcoalition.org)) is a unique global multi-stakeholder collaboration that brings together leading global initiatives and organizations to harmonize approaches to natural capital.

Joining NCC signifies the DOC's commitment and leadership in increasing business and economic resilience by helping companies address environmental issues. Learn more about natural capital at [www.commerce.gov/naturalcapital](http://www.commerce.gov/naturalcapital).

## PRSS Hosts Risk Communication and Ecological Economics Experts

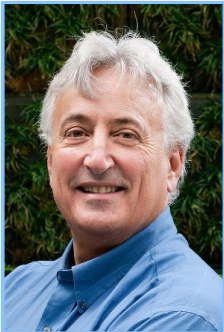
In August the Performance, Risk, and Social Science (PRSS) Office hosted prominent researchers in the risk communication and ecological economics fields at NOAA's Silver Spring, Maryland Campus. Drs. Timothy and Deanna Sellnow are strategic communication professors at the University of Central Florida. Their seminar discussed key risk communication concepts, provided specific recommendations for communication practitioners, and described how to use social science to create effective messaging.

View the seminar at: [www.lib.noaa.gov/about/news/Sellnow\\_080416.pptx](http://www.lib.noaa.gov/about/news/Sellnow_080416.pptx)



Drs. Timothy and Deanna Sellnow  
Credit: University of Central Florida

***"The right words at the right time can save lives" - The Sellnows***



Dr. Robert Costanza  
Credit: Dr. Costanza

Dr. Robert Costanza is a professor in Public Policy at the Crawford School of Public Policy at the Australian National University. His seminar discussed spatially explicit modeling of regional landscapes and new approaches to integrating these models with sophisticated game interfaces to inform players about system dynamics, and elicit valuation information based on player choices. The talk emphasized that valuation of eco-services is not the same as commodification or privatization; conventional markets are often not the best institutional frameworks to manage eco-services, and we need new, common asset institutions, like common asset trusts, to better account for eco-services values.

View the seminar at: [www.lib.noaa.gov/about/news/Costanza\\_081116.pptx](http://www.lib.noaa.gov/about/news/Costanza_081116.pptx)

### ***OAR Supplemental Funding, continued from page 1***

The final project co-led by Brenda Phillips and (University of Massachusetts Amherst) and Joseph Trainor (University of Delaware) builds on a multi-institution project to design, develop, demonstrate, and evaluate next-generation, resilient warning systems for rapid-onset hazards, such as tornadoes and flash floods. The NOAA-specific part will leverage the network to test among different options for sampling the population and will also collect longitudinal datasets to showcase the influence of NWS products and services. This work is critical to NOAA as the agency is currently examining the potential of conducting routine data collection from the U.S. population, but they do not know how densely they need to sample, in space or time, to do so well.

For more information on these funding awards, contact [kim.klockow@noaa.gov](mailto:kim.klockow@noaa.gov)

### ***Did You Know?***

**The National Weather Service's Storm Prediction Center issues approximately 1000 weather watches per year.<sup>2</sup>**

# Social Scientist Spotlight: Dr. Melissa Poe, Washington Sea Grant



Photo Courtesy of Dr. Melissa Poe

## What Melissa Does:

Melissa is a social scientist at Washington Sea Grant in Seattle, Washington. She is also the liaison to the NOAA Northwest Fisheries Science Center.

Her work focuses on social and cultural dimensions of Pacific Northwest marine ecosystems. Specifically, she works to understand the social and cultural connections to ecosystems including how to identify those connections and the risks to those ties.

## Her Background:

Melissa holds B.A. in Sociology and Spanish, with a minor in Peace Studies from Whitworth University in Spokane, Washington where she studied abroad for several terms in Central America.

Before returning to graduate school, Melissa worked in disability services, legal counseling, and as an ecotourism guide. During that time, she led kayaking expeditions in the San Juan islands, multi-day backpacking along the Olympic coastline, and trekking in Mexico and Nepal.

She later earned an M.A. in Anthropology and Ph.D. in Environmental Anthropology, both from the University of Washington.

## Important Accomplishment:

Her collaborative study on urban foraging (the practice of gathering plants for food and medicine) changed the Seattle forest stewardship plan. Foraging for food and cultural uses is now included as part of a sustainable approach to forest management.

## Highlights and Lowlights of Working in Social Science:

There is a real commitment from NOAA Sea Grant and NOAA Fisheries to increase social science capacity. The existence of her position is one example of that commitment.

Although the commitment exists, investments in social science are not on par with other science investments. In addition, the social science community is yet to fully communicate the value of social science. We need to accrue success stories that help explain the value of social science.

## Biggest Misconceptions:

First, that social science is all about understanding how to change human behavior. Melissa is more interested in why we live the lives we live and how policy can improve well-being for resource-dependent communities.

Second, that social science is a singular discipline. Social science is multidisciplinary and there are very different methodologies and ways of understanding and knowing the world and the way we frame problems.

## Her Vision for Social Science at NOAA:

Melissa would love to see social science across programmatic areas in all of NOAA to improve the societal outcomes of ocean policy and management.

## A Fun Fact About Melissa :

Her ancestors are from the Azores Islands, an autonomous region of Portugal. Her family has lived there for 500 years. She is heading to Rabo de Peixe in October for two weeks to retrace her family's roots.

Reach Melissa at [melissa.poe@noaa.gov](mailto:melissa.poe@noaa.gov)





# NOAA's Commitment to Diversity and Inclusion

NOAA's Diversity and Inclusion Management Advisory Council is part of the agency's continuing efforts to strengthen diversity and inclusion programs. The Council formed in August 2016 and is tasked with, among other duties, to provide guidance and advice to NOAA leadership on diversity and inclusion matters and generate a Diversity and Inclusion Strategic Plan for the Agency.

## ***Benefits of a Diverse Workforce<sup>1</sup>***

1. **A diverse workforce drives economic growth.** Our nation's human capital substantially grows as more women, racial and ethnic minorities, and gay and transgender individuals enter the workforce.
2. **Recruiting from a diverse pool of candidates means a more qualified workforce.** When companies recruit from a diverse set of potential employees, they are more likely to hire the best and the brightest in the labor market.
3. **Businesses need to adapt to our changing nation to be competitive in the economic market.** Census data tell us that by 2050 there will be no racial or ethnic majority in our country.

For more on these and other benefits to a diverse workforce, visit: [www.americanprogress.org/](http://www.americanprogress.org/)...

## **References**

<sup>1</sup>The Center for American Progress. 2012. The Top 10 Economic Facts of Diversity in the Workplace.

[www.americanprogress.org/issues/labor/news/2012/07/12/11900/the-top-10-economic-facts-of-diversity-in-the-workplace/](http://www.americanprogress.org/issues/labor/news/2012/07/12/11900/the-top-10-economic-facts-of-diversity-in-the-workplace/)

<sup>2</sup>National Weather Service Storm Prediction Center Frequently Asked Questions Number 2.2. [www.spc.noaa.gov/faq/#2.2](http://www.spc.noaa.gov/faq/#2.2)

<sup>3</sup>Green 2.0 — The Green Diversity Initiative. 2014. The State of Diversity in Environmental Organizations: Mainstream NGOs, Foundations, and Government Agencies - The Challenge. [www.diversegreen.org/the-challenge/](http://www.diversegreen.org/the-challenge/)

## **Recent NOAA Social Science Publications**

- \* [NOAA Social Science Committee and National Weather Service. 2016. "Risk Communication and Behavior: Best Practices and Research Findings"](#)
- \* [Rouleau, T., J. Adkins, and V. Were. 2016. U.S. Ocean and Coastal Economies: Significant Contribution to the National Economy. U.S. Coast Guard Proceedings — Summer 2016:13-16.](#)
- \* [Carter, D. W., S. Crosson, S. and C. Liese. 2015. Nowcasting Intraseasonal Recreational Fishing Harvest with Internet Search Volume. PloS one, 10\(9\):e0137752.](#)
- \* [Karnauskas et al. 2015. Evidence of Climate-Driven Ecosystem Reorganization in the Gulf of Mexico. Global Change Biology. 21\(7\)2554-2568.](#)

## **Have a publication to share?**

Help us populate the list of social science publications by sending the citation to [prss.socsci@noaa.gov](mailto:prss.socsci@noaa.gov)

*We would like your input. Please send us ideas for stories, articles, or social science work that we should highlight. You can contact us at: [prss.socsci@noaa.gov](mailto:prss.socsci@noaa.gov)*